have a daily output ranging from 20,000 to several thousand board-feet daily. There were six saw mills in Tolong in 1951; recently a plywood factory and another large saw mill (the latter owned by the American Rubber Company) have been established in this municipality. Most saw mills in Tolong are located in the mountains; the cut timber is hauled out by trucks during the dry season.

The trees most frequently cut for these mills are white lauan (Pentacme contorta Merr. & Rolfe), red lauan (Shorea negrosensis Foxw.) and tangile (Shorea polysperma Merr.) The latter two trees are known as Philippine red mahoganies in the timber trade, although they are not true mahoganies.[34] The lumber cut in Tolong is trucked to Dumaguete or shipped in small boats to Cebu, Bacolod and Iloilo. Just prior to my visit to Tolong one boat-load of lumber had been sent to Japan. While Negros has abundant timber resources, the barriofolk use only small quantities in building their houses. Inadequate development of Negros' timber resources, high prices, and poor transportation facilities are a few reasons why so little lumber is used by the rural people.

Brush, shrubs, and immature forest growth compose the secondary forest areas of Negros, resulting from the destruction of the primary or tropical rain forest by kaingin or lumbering activities. The secondary forests are, for the most part, in the municipalities of Cadiz,

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[34] Tamesis and Aguilar, op. cit., pp. 45, 47, and 49.

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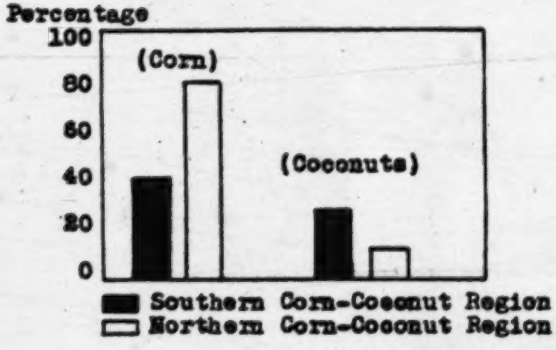
square mile,(in the south, 196 persons). The heavy pressure on the land has resulted in a constant westward push of the people, who cleared the steep slopes of their natural vegetation and planted the cleared land. This has resulted in a larger proportion of submarginal agricultural land than in the southern region. A greater proportion of the cultivated land is devoted to corn and a much smaller area is occupied by the principal cash crop, coconuts. Lacking an easy access to outside food sources and adequate transportation facilities for selling copra, the barriofolk of this region rely upon subsistence agriculture.

The difference between the Southern and Northern Corn-Coconut regions in regard to land occupied by both corn and coconuts is illustrated in Graph II.

GRAPH II

Percentage of Cultivated Land
Devoted to Corn and Coconuts
1950 -- 51



Percentage of cultivated land in the northern region devoted to various crops is shown in Table XII.[1]

1 [See p. 113, cat. 311 -- Analyst]

devoted to rice. About 12 per cent of the total cultivated land in Negros Oriental is devoted to rice while in Negros Occidental three times this amount (36 per cent) is occupied by rice. 311 243

Today Negros imports rice from Panay and Mindanao to feed its people. Spencer states: "The main sugar-producing area of Negros Island [Occidental province] and the whole island of Cebu are the chief deficit regions, with marked food shortages."[90] In the past, however, Negros was a rice surplus area. Miguel de Loarca wrote in the latter part of the 16th century that northern Negros was "rich in foods, such as rice." Legaspi's account of Negros states: "Rice which is the bread, grows in abundance."[91] Negros' shift from a rice surplus to a deficit was largely the result of the great expansion of sugar cane acreage and to the associated increase in population.[92] Negros is capable of raising sufficient rice for its population with improved agricultural practices and increased irrigation. 433 438 311 243

More than a thousand varieties of rice are grown in the Philippines. Many varieties are old established rices while others have been introduced from the United 243 177

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[90]Spencer, op. cit., p.72.

[91]Miguel de Loarca, Blair and Robertson, op. cit., V, p.47.

[92]Wernstedt, op. cit., p.190.

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The yield ranges from 24 to 30 cavans of palay per hectare.[98]

Small rice-producing regions of Negros Oriental are such localities as Canaway (Siaton), Mayabon (southwestern Zamboanguita municipality), the Tanjay River area in Bais and Tanjay. These regions have from several hundred to two or three thousand acres of rice land. For most of the people of Negros Oriental, rice is a luxury food. Only the better-to-do eat rice daily; the average barriofolk eat rice only for a month or two during the year and on festive occasions. Very little rice grown in these areas enters the commercial trade of Negros.

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Sugar Regions of Negros

Before World War II sugar was the most important export crop of the Philippines. Approximately three-fourths of the crop was sold to the United States. In 1951-52 the Philippines supplied almost 3 per cent of the total sugar cane crop of the world. Since the war copra has outranked sugar as the principal cash crop due to the widespread wartime destruction of sugar extracting and refining facilities. Sugar cane cultivation was a pre-Spanish activity in the Philippines, when Chinese merchants exported sugar to China. By the end of the

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[98] One cavan of palay (unhusked rice) equals 44 kilos or 97 pounds while a cavan of clean rice equals 57.5 kilos or 127 pounds. A hectare is 2.47 acres.

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Spanish regime sugar had become a major export but was a relatively backward industry. "Not until after the free trade developments of 1909 did the sugar industry expand markedly, though the United States already was the chief market."[99]

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The major sugar cane-producing areas of the Philippines are central Luzon, Panay, and Negros. In 1950-51 Negros produced nearly 2 per cent of the world's total sugar cane. In contrast to the backward practices associated, for the most part, with the corn-coconut and rice regions of Negros:

> The techniques used in the sugar-producing areas represent an entirely different stage in the application of technical know-how to agriculture than do the practices used in any of the other agricultural crops...Mechanized farming is practiced in most of the sugar cane-producing areas where land holdings are of sufficient size to permit economic use. Artificial fertilizers are applied on almost all of the cane fields. The use of modern land farming techniques in sugar cane cultivation bears immediate cash returns, which is not the case with coconuts or other crops.[100]

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Most of Negros' sugar cane is grown on haciendas (plantations) some of which are as large as several thousand acres. The haciendas are contracted to supply the mills with cane. In the case of the large Victorias sugar district, more than 450 individual planters supply cane for the Victorias Milling Company. For the most

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[99] Spencer, op. cit., p.803.

[100] Wernstedt, op. cit., pp.142-3.

region in the Philippines. Here more than 160,000 acres of land are devoted entirely to sugar cane.[101] Table XIII gives the percentage of land devoted to different crops in the western sugar cane subregion of Negros Occidental.

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TABLE XIII

Percentage of Land of Each Municipality[102] Devoted to the Major Crops, 1950-51
Western Sugar Subregion

Municipality	Sugar Cane	Corn	Coconut	Rice (a)	Vegetables
Saravia	73	8	*	18	*
Silay	48	12	1	38	1
Talisay	55	14	3	27	1
Bacolod City	42	6	9	41	2
Murcia	47	11	*	39	3
Bago	28	3	1	67	3
Pulupandan	36	1	5	53	5
Valladolid	8	1	2	88	1
San Enrique	21	2	4	72	1
La Carlota	67	8	0	22	3
Pontevedra	44	2	1	51	2
La Castellana	46	9	1	41	3
Isabela	41	8	1	48	2
Hinigaran	28	8	2	59	3
Binalbagan	41	9	1	45	4
Himamaylan	23	5	7	62	3
Kabankalan	31	6	1	59	3
Ilog	37	8	5	48	2

(a) Indicates both upland and lowland rice
(*) Indicates less than 1 percent

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The western subregion with its seven sugar districts produced 43 per cent of the entire Philippine sugar cane

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[101] Wernstedt, op. cit., p. 183.

[102] Wernstedt, op. cit., p. 183. Separate figures for the newly-created Magallon municipality (June 6, 1951) are not given for when these were compiled Magallon was not separated from Isabela.

in 1950-51 or nearly 64 per cent of the total Negros crop.

Wernstedt aptly describes the general landscape of western Negros:

> The sugar lands of Negros present much the same landscape picture wherever they are encountered. In many respects they are more reminiscent of the wheat lands of Midwestern United States, than those characteristic of the Orient. Extensive rolling fields are covered with waving cane, looking not unlike waving wheat from a distance. Modern farm machinery can be seen at work in the fields, small cross-road villages house the agricultural workers, and large gleaming factories dot the landscape like Midwestern grain elevators. All look somewhat incongruous amidst the intensively cultivated rice paddies dotted with lumbering carabaos pulling wooden plows through the fields.[103]

This chapter has aimed to survey the general features of Negros' cultural landscape with emphasis on those factors that highlight the position of Siaton municipality and Caticugan. Caticugan is one of more than 300 barrios of Negros Oriental, located in a relatively sparsely settled part of the Southeastern Coastal lowlands. The barriofolk are subsistence farmers whose major crop is corn, although some rice is raised. The western province of Negros is primarily a sugar cane and rice area, with more people, urban settlements, transportation facilities, and modern agricultural methods. The people of Caticugan live outside the cash economy of Negros' sugar haciendas and centrals. Besides

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[103] Wernstedt, op. cit., p.186.

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The sugar-producing areas of Negros were expanding. In 1836 less than 300 tons of sugar had been produced while thirty years later the production had increased to nearly 12,000 tons. The declaration of Iloilo city as a free port in 1855 stimulated the infant sugar industry. "The total value of exports leaving the port of Iloilo... jumped from ₱82,000 [$41,000] in 1858 to over ₱1,000,000 [$500,000] in 1863, with most of this increase in exports coming from the shipment of sugar from Negros."[111] In the same periods (the 1860's) the sugar haciendas of Negros began to develop; some of them covered several thousand acres and supported their owners in luxury.

The Justices of the Peace in Siaton

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The year following the division of Negros into two provinces (1891), the first justice of the peace was appointed in Siaton. In 1885 a royal decree, a "concession to public opinion," had provided for the appointment of a justice of the peace to every municipality. This office previously had been filled by the capitans. "When such persons [lawyers or others 'whose position and circumstances warrant it'] could not be found the petty governors

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[111] Wernstedt, op. cit., p. 79. Walker states that in the early 1900's Iloilo owed its existence largely to Negros' sugar industry. Walker, op. cit., p. 10.

20:Hart E-5 (1954) 1954 OAI Philippines
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held, and at midnight Taft and his group left Dumaguete. 175*
Taft kept his word. The Negros Republic was dissolved and the provincial governments of Negros Occidental and Negros Oriental created. For the first time Negros' provinces were classified as civil provinces. Demetrio Larena was appointed civil governor of Negros Oriental.

Effective control by American forces of Bohol and Cebu was not accomplished until the last of 1901. Samar was one of the last islands to be pacified for in September, 1901, fifty American soldiers were ambushed and killed on the island.[160] In April, 1902, Batanga (Luzon) resistance collapsed and the Filipinos' fight for independence ended with an American victory.[161]

THE AMERICAN PERIOD (1898-1941)

The American period is an era of great expansion of Negros' sugar industry and population. The sugar-producing regions of Negros had suffered during the revolution. Political and military conflicts, local unrest, and a general paralysis of commerce discouraged the hacenderos from planting new crops. This period of indecision and stagnation lasted until 1909. Then the Payne-Aldrich Tariff Act opened American markets to a 175* 433 439

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[160] Henry F. Pringle, The Life and Times of William Howard Taft. New York, Farrar and Rinehart, 1939, 2 vols., I, p. 198.

[161] Zaide, The Philippines Since the British Invasion, pp. 280-1.

limited amount (300,000 tons) of duty-free Philippine sugar; there were immediate increases in sugar production in the archipelago.[162] By 1921 the exporting of sugar had exceeded that of the Spanish period. With the inauguration of the quota system the output of Negros' sugar declined somewhat, but remained relatively stable until World War II.

Negros' population expansion was directly connected with the growth of the sugar industry. However, Panay, Cebu, and Bohol were becoming more overcrowded and Filipinos from these islands emigrated to Negros' less densely populared plains. Negros' population (excluding Siquijor) increased from 270,891 in 1887 to 509,766 in 1903.[163] In sixteen years the population of western Negros (approximately Negros Occidental province) had grown from 148,137 (1887) to 308,272 persons (1903) while the population of the eastern part of the island (approximately Negros Oriental) had expanded from 122,754 (probably including Siquijor) to 201,494 (155,471 excluding Siquijor). More people were settling in western than eastern Negros. With passing decades western Negros' population was to become nearly triple that of the eastern part of the island. An election

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[162] The 1913 Underwood Tariff Act, amending the Payne-Aldrich Act, permitting duty free entry of all Philippine products into the United States, irrespective of quantity, provided that not more than 20 per cent of the final product was of foreign origin or manufacture.

[163] Census of the Philippines: 1903, I, p. 87.

20: Hart E-5 (1951) 1954 OA1 Philippines OA1
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they initiated changes in farming methods and augmented the importance of cash, trade and export crops.

The plantation system introduced by the Spaniards in the latter part of the 19th century stressed coconut, tobacco and sugar cultivation. Under the Americans the plantation system was intensified and abaca and pineapple were added to the crops.

Commercial mechanized agriculture, the fifth system, is basically an American innovation applied to plantations and smaller private holdings both in newly-developed areas and in older cultivated regions. This system, however, is not widely distributed or intensively used due to problems that involve terrain, lack of capital and trained operators. Additional hindrances to mechanization of farms are lack of adequate fuels and the fact that little farm machinery is manufactured in the Philippines. Some Filipinos, however, have speculated on the possible use of local fuels such as coconut oil or alcohol.[5]

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Since the barriofolk of Caticugan are subsistence farmers, they sell very little of their corn and rice. Rice is less important than corn since many of the farmers have no paddies. The dominance of subsistence agriculture characterizes the people living in barrios in the Siaton

[5]Ortigas, op. cit., pp. 44-51.

River valley. Several landlords, residents of the poblacion, have sizeable holdings in Bolog or Common, and part of their share of the corn, rice, or peanuts raised by their tenants is sold for cash. None of these landlords, could in any sense of the word be considered wealthy. The "cash crops" of Caticugan are coconuts, vegetables and guhang, an alcoholic beverage made from the sap of the buri palm. For the majority of the people, guhang is probably the most important of these few "cash crops."

The remainder of this chapter discusses (1) agricultural calendar; (2) caingins; (3) lowland rice and corn agriculture; (4) the manufacture of guhang; (5) minor single crops of Caticugan (coconuts, cassava, camotes, etc.); (6) vegetables and other garden crops (tangkong, tobacco, etc.); (7) farm animals; (carabao, cattle, chickens, etc.); (8) cooperative labor groups; and (9) local agricultural extension activities. Plate XXI shows the land use patterns of Caticugan.[1]

THE AGRICULTURAL CALENDAR OF CATICUGAN

The agricultural calendar of the barriofolk of Caticugan is synchronized with the seasons of southern Negros. Except for a small irrigated area in Barrio Caticugan, the farmers are totally dependent on precipitation of the southwest monsoon. The agricultural calendar should be read with these climatic conditions in mind. (See Chapter II.) The calendar, of course, varies a

1 [See p. 272, cat. 116 -- Analyst]

20: Hart E-5 (1951) 1954 OA1 Philippines
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same methods used in the lowlands. The harvesters normally get one-fourth, sometimes, but rarely, one-third of the rice harvested. 243

A very limited survey, so restricted in nature as to be merely suggestive, was made of seven caingins. The average corn yield per acre of these caingins was five bushels.[15] This figure is for the first corn harvest that usually yields more than the second crop. Three of the seven caingins were damaged by wild pigs and monkeys, suggesting the problem these pests present to the farmers. Dong-go was planted in all the caingins except two which grew Bagsiao. The caingins were located in sitios Kang-otot and Nawakat (Casala-an), Casala-an, Dolog, and Bantolinao and Sitio Banat-e (Maloh). 241 311 433

[15]The conversion was: one cavan of shelled corn equals 58 kilos and 1 kilo equals 2.2 pounds. One bushel of ear corn (not shelled corn) equals 52 pounds. To determine the size of caingin or lowland corn fields the following method, recommended by the provincial agricultural office, was used: "With reference to your letter...regarding rate of planting corn, please be informed that the rate varies according to the number of grains dropped per hill and the distance of planting corn. We noted that if the distance of planting is 80 x 80 cm. dropping 4-5 grains per hill the rate of planting is around 6 gantas per hectare, especially if the grains of corn used are small. By dropping only three grains per hill at a distance of 1 M. x 80 cm., especially if the grains are big, the rate of planting per hectare of corn is only around four gantas. But by dropping three grains per hill at a distance of 1 meter by 1 meter, if the grains are medium size, the rate of planting is only five gantas per hectare. So on the average we use five gantas per hectare as the rate of seeding corn regardless of the size of the grains and the distance of planting and the rate of planting per hill..." Personal communication to writer from Provincial Agricultural Supervisor, February, 1951, Dumaguete, Negros Oriental. [804]

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The harvesters (manalabang) received about 15 per cent of the corn harvested in these seven caingins. Two of the seven fields were harvested without the assistance of the manalabang; it is the custom not to assist in the harvest of a field that is very small or has a poor harvest. The largest caingin was seven and one-half acres while the smallest was almost one acre. Four caingins were tilled by their owners while the others were cultivated by tenants.

Figures were also obtained on five rice caingins located in Casala-an, Sitio Kapakolan (Casala-an), Sitio Tampaga (Apoloy) and Banat-e. All caingins were tilled by the owners, except one that was cultivated by the owner's sister's husband. The average rice yield per acre [433] was five cavans. I obtained the same yield estimate from the Siaton municipal agriculture inspector. The average size of the caingins was three-fifths of an acre. Tinogbong and Papayo were the two rice varieties planted.[16] The

[16] Caingin sizes were determined by the method used by the provincial agricultural office in Dumaguete. "If upland rice is planted by the broadcasting method it needs 30-35 gantas of seed palay to plant a hectare. It takes only 25 gantas of seed palay to plant a hectare of upland rice if the method of planting is by the hill method, dropping 5-8 grains of palay per hill of 20-25 centimeters distance each." Personal communication to the writer from the Provincial Agricultural Supervisor, Dumaguete, Negros Oriental, March, 1951. Since little upland rice is planted in the Siaton River valley area by the broadcast method, the hill method was used to determine caingin sizes.

For corn it was necessary to determine the size of the baskets used to carry the harvested corn to the house. Basket sizes in Caticugan varied so the number of gantas the various baskets (bukag) contained was obtained (which was from nine to twelve gantas) and the average basket size determined, e.g. nine gantas. I gathered information

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stump in the center. Bunches of rice stalks, about two handfuls, were slightly leaned against the base of the stump. The stump was encircled in this manner with "rings" of rice. One "ring" or layer was placed over another and stacks six or seven feet high were made. No rice stacks were seen in Caticugan in 1951. The barrio-folk said tumpils were only memories of the past when the rice harvests were more abundant. I did see rice stacks built around a center bamboo upright in other parts of southern Negros.

Paddy Sizes and Yields in Caticugan and Environs

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While municipal land records were studied, a personal survey was made in Caticugan to check the figures obtained from these records as to size of paddies, also to get additional data on yield, residence of owners and tenancy rates.[33] Few farmers know the acreage of their fields. The method of determining field sizes has already been described. I had mimeographed forms made of the land records and

[33] Rural land records in the Philippines are not noted for reliability; this is true for other Asian countries such as Japan. Vide Richard K. Beardsley's review of The Japanese Village in Transition, in Pacific Affairs, XXIV, No. 4 (December, 1951), pp. 428-30. There have been no cadastral surveys in Siaton municipality. Recently the land records of Negros Oriental were rechecked to improve their accuracy. However, the "inspectors" are said to have been the local supporters of provincial politicos and the program occurred suspiciously close to an election.

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transferred the data from these records to my forms. All land records for the barrios in the Siaton River valley were copied.

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I interviewed about fifty families--about 40 per cent of the families resident in Caticugan. Of course, not all of the people living in Caticugan own or till paddies. Of the families interviewed, figures were obtained for twenty-six individual paddies from twenty families; other families did not cultivate any paddies. Six of these paddies were located outside Caticugan so they were eliminated. Of the twenty paddies, totaling nearly 25 acres, all were planted with Macan Sta. Rosa except one farmer who had interplanted a glutinous variety.

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Another survey was made of lowland rice paddy sizes and yields in Sandolot and Datag to obtain comparative data. Seventeen families living in Datag and fourteen in Sandolot were interviewed. Their paddies, totaling 61 acres, were all planted with Macan Sta. Rosa, except one paddy planted with Lubang. According to the municipal land records the average size of the rice fields in Caticugan is .99 of an acre while my survey arrived at the figure of 1.1 acres. The average peddy in Sandolot-Datag was slightly larger--1.6 acres. In 1952 Siaton's average rice yield per acre was 891 pounds; for Caticugan, according to my survey, the yield was only 553 pounds per acre. The Sandolot-Datag average rice yield was lower than in Caticugan; 337 pounds per acre. These figures support the opinion that of all the rice fields seen in the Siaton

Many people of Caticugan continue the corn harvest ceremony of their pre-Spanish ancestors but perform it within the privacy of the family group. I know of families in Caticugan who absolutely denied holding a dulot yet whose neighbors said they did. In the northern barrios there was no embarrassment in discussing the dulot. It was a barrio custom. In Caticugan many barriofolk recognized the dulot as a backward unchristian custom, yet they do not feel entirely secure in discarding it; to discard the dulot means to challenge their beliefs in encantos, kolisaos and kataos.

The decline of the dulot also reflects the growing individualism so noticeable in Caticugan. The group has been losing the firm control once held over the individual. This change is apparent in the role of the family in courting and marriage customs. The old cooperative labor groups have almost disappeared in Caticugan; with increasing population and subdivision of land through inheritance the fields are often so small that volunteer labor activities are less necessary today. It also has become cheaper to pay for help than to furnish workers with meals. Caticugan is en medias res of a gradual transition from a bartering to a money economy that stimulates the growth of individualism.

The population of Caticugan has expanded considerably over the years, but the yield of the fields appears to have decreased. The acreage yield of corn in the northern barrios is more than twice as large as in Caticugan. An

insight into the once greater abundance of food in Caticugan is given from an offering made during the last part of the Spanish period. This offering included one pig, fifteen or twenty chickens (with white feathers), a basketful each of bingka, bodbod, and puto (all varieties of rice cakes), three plates with ten eggs each, and large quantities of tuba. In the past the ritualist who performed the dulot in Naga often received a basketful of corn for his service; none of the ritualists receives this amount today.

Some individuals who stopped the dulot in Caticugan said they did so because "it is too expensive today." The food offering to the spirits was not as costly as feeding the guests. The dulot described in Lamtoc required much corn to make the cakes, beside the other food served. It is possible that since the corn yield in these northern barrios is nearly twice that of Caticugan the community dulot is less of a burden. One reason given for having only a family dulot in Caticugan is that the expense of guests is eliminated. Dulots held for Caticugan's irrigated corn harvests would attract a large number of people since they would occur during a seasonal period of food shortage.

This detailed discussion of the spatial distribution of the dulot in both Caticugan and the northern barrios of the Siaton River valley illustrates how many factors must be considered in explaining change in one custom. There is no "royal road" to a clear understanding

for consolation. Manalabangs who have fairly large cornfields are often given free corn even though they offer to purchase it. In the end, however, the giver loses nothing since his "gift" will be returned when the recipient's field is harvested. The manalabang harvest shares range from several ears of corn to as many as twenty ears. 243 476

When the paddy corn is harvested corn prices are at their peak in Siaton poblacion for this is the "starvation period"--the period when many family's last harvest corn supply is running low and the new crop is still immature. The harvesters also try to buy corn from the owner; some women come just to buy or barter fish or tuba for corn. Usually the owners are not eager to sell since most of them will have to buy cornmeal before the next harvest. Yet few refuse to sell or barter some of their harvest, although they often limit the amount a person may buy. To refuse to sell some of their corn harvest would mean some barriofolk would call them "greedy." 243 433 476 435 432

Manalabangs collect a small pile of corn ears they have harvested and sit down with a definite air of possession. This is the corn they insist on buying. In one case the owner refused to sell the manalabangs the amount of corn they had requested. Collecting all the individual corn piles, he resorted them into new piles, eliminating about a third of the corn. He asked fifteen cents for each pile of corn but settled for ten cents after the women bargained. These female manalabangs had already received their share for helping in the harvest; the 243 476 432

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I also made a survey of harvest yields and field sizes that included 51 acres of land--17 acres in Barrio Caticugan, 11 acres in Talo-ot and 23 acres in Naga. Caticugan's average yield for the first paddy and first non-irrigated crops was 6 bushels of corn per acre. The average size of the cornfields in Caticugan, based on this survey, was 1.2 acres while the average obtained from the land records was 1.9 acres. Several hundred husked cornears were measured from the second non-irrigated harvest of Barrio Caticugan; the average length of the ears was 2-1/2 inches. However, the second harvest from non-irrigated cornfields is usually smaller than the first harvest.

My survey included a small field in Barrio Caticugan where loose carabaos destroyed the crop and four fields in Naga, two in which the crop was damaged by wild pigs and two damaged by insects and floods. Total acreage of these fields was less than 5 acres; they were included in the averages for such incidents are fairly common. The survey's largest cornfield was 4-acre field in Talo-ot while the smallest was .3 of an acre. According to municipal land records the largest field in Caticugan was 27 acres (a field that had been divided among the heirs although the record was not changed) while the smallest field was .1 of an acre.

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In 1939 there were 47,440 farmers in Negros Oriental with 43.9 per cent owners, 12.1 per cent part owners, and 43.7 per cent tenants.[52] According to my surveys,

[52] Yearbook of Philippine Statistics: 1946, p. 138.

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the tenancy for both paddy and cornfield in Caticugan is 55 per cent owner, 20 per cent part owner, and 25 per cent tenant. These figures bear out my opinion and that of other informed observers that in Siaton the tenancy rates are lower than the average for the province.

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I made a similar survey to determine the average yield, field size, and the harvester's share in the Siaton River valley barrios. In Dolog only the two landlords (the present mayor of Siaton and the former deputy governor of the province, both brothers) were interviewed for they own most of the cultivated land. The figures, combined with those of Caticugan, are given in Table XIX.

TABLE XIX

Cornfields: Average Sizes and Yields and Harvesters' Shares in Siaton River Valley - 1951[53]

Community	Average Size Of Fields (Acres)	Average Yield Per Acre (Bushels)	Harvesters Share of Total Harvest (Percentage)
CATICUGAN	1.2	6	15.5
Datag	1.5	7	15.0
Sandolot	1.2	12	13.0
Casala-an	1.2	12	15.3
Dolog	-	20	-

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Table XIX indicates that corn yield per acre increases as one goes up in the Siaton River valley. Yields

[53] The survey included 71 acres in Casala-an, 44 acres in Sandolot and 47 acres in Datag. The two landlords of Dolog gave me information on their fields that totaled 35 acres. Data obtained from Datag, Sandolot and Casala-an were gathered by my assistant who took two days to collect the figures. Obtaining such information is often difficult when the barriofolk are not well acquainted with the field worker. For this reason I felt my assistant, a former school-teacher in Sandolot, well-known and respected by most of the people, could collect the data more accurately.

in Casala-an and Sandolot are twice those of Caticugan while in Dolog the yield is more than triple. These figures bear out my opinion that cornfields in the north- look healthier, the stalks were taller and the number of ears per stalk greater. Of all the growing corn I saw in the Siaton River valley Dolog's fields appeared to be the best. More fertile soils and greater precipitation with less chances of drought periods are some explanatory factors.

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Methods of preparing the land, seed selection, corn varieties, and care of the planted fields do not differ significantly among the barrios. As stated in Chapter II, the annual precipitation in the northern barrios is greater than in Caticugan and Siaton poblacion. In the northern part of the Siaton River valley the soil is rich, well-drained sandy loam. Caticugan's corn often suffers, as in 1951, from lack of rain during the growing season. In 1951 I was sure that the first non-irrigated corn was going to be a near total loss for lack of rain. While this did not occur some fields and parts of other fields had to be replanted because the young corn died.

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A certain standardization of the harvesters' share appears to exist in the Siaton River valley. One might imagine, as I did, that their harvest shares would be larger in the northern barrios where the yield is greater. The manalabanga' share in the rice harvest was only 10 per cent, a reasonable difference since rice is scarcer and of greater value than corn.

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There were only four or five coffee trees in the entire barrio. The price of coffee beans in the poblacion was high; most of the people in Caticugan, and many in the poblacion, drank "coffee" made from toasted ground cornmeal.

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There was a custom in the barrio of tying a broken pot or bottles to the cacao, gourd and papaya plants. The pots or bottles were said to make the plants produce large fruits and prevent the fruit from falling when immature. This custom was observed in Siaton poblacion, in nearly every barrio visited in southern Negros, and in Dumaguete City.

Bananas

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Not many bananas are raised in Caticugan or Siaton poblacion. The western barrios, e.g., Cabangahan and Giliga-on, produced most of the bananas sold in the stores of Siaton poblacion; often busses from the west would leave bunches of bananas in the poblacion for sale. However, there were many days when bananas could not be purchased in the marketplace or in the sari-sari stores along the National Road. The banana bud is cooked and eaten as a vegetable; this may be one reason for the scarcity of the fruit in Caticugan.

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Kapok

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In 1948 less than 5 per cent of the total Philippine production of kapok was grown in Negros Oriental. Some kapok trees, doldol (Agave cantalu Roxb.) grow in Caticugan

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Agricultural Extension Activities

The practice of agriculture in Caticugan, as here described, strongly supports the statement that "one of the most serious problems of the Philippines is the lag in the development and especially in the application of farm technology."[80]

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In 1951 Philippines' yield of rice per acre was the same as the yield in 1918; this was the lowest in Asia. In Caticugan there have been few basic changes in basic agricultural methods in the century. Some of the simplest techniques for improving yields have failed to reach the people. For example, the people still select rice and corn seed in the most primitive manner. The agricultural college at Los Baños has developed methods for improving corn and rice yields through better selection of seeds; these methods would not cost a centavo yet this information has not reached the people.

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The Philippine Government's neglect of agriculture, the basic industry and source of its wealth, has been scored by numerous critics and studies over the past several decades. Budget figures are one index to the indifference of most Filipino lawmakers to agriculture.

> In 1949, the gross national product, including disbursement of the United States, was over ₱5.0 billion. Of the total amount agriculture contributed 56 per cent, fisheries 6 per cent and forestry 3 per cent.

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[80] Robert T. McMillan, "Major Rural Problems in the Philippines and Suggested Solutions." Mimeographed copy of paper read at the 12th Biennial Convention of the National Federation of Women's Clubs, Manila, March 29, 1952, p. 2.

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Guavas ripen in August and September. Rarely, the barrio-folk make guava dulce which is pulverized guava pulp, boiled in a frying pan filled with water until tender. The cooked pulp is eaten mixed with brown sugar.

The small round fruit of the ano-on tree is eaten usually in April. The fruit is red when mature, it is often gathered by the children although the tree is not abundant in the vicinity of Caticugan. Fruit of the kamansilis (Pithecolobium dulce (Roxb.) Benth) is also gathered and eaten, particularly by the children. Many kamansilis trees grow in Caticugan, especially along the Siaton River bank. The fruit is small and flat and only the inner pulp is eaten. The bark of this tree is used also in tanning.

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Some small ~~wild mangoes~~ are gathered in August and September. The ~~domesticated~~ mango is quite popular in Siaton and the demand always exceeds supply. People who have large mango trees often send boxes of the fruit to Dumaguete where they bring a higher price than in Siaton poblacion. Sometimes low fires are built under the mango trees to force early production of fruit.

PALM FLOUR

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A coarse flour can be made from the saksak, ediok and buri palms. This flour is an "emergency food" in Caticugan but some people in northern communities, like Dolog, use flour made from the saksak rather frequently before the first corn harvest. During the last war the

(kinogay), cooked in green bamboo tubes, or prepared in the sinakol manner (steam cooked), often mixed with tiktik or binlod (finely ground cornmeal). Sometimes the people from the northern barrios in the Siaton River valley come to Caticugan to barter this type of flour for corn and rice. This was not done, to my knowledge, during this field research.

Hunting and food gathering activities are related to the inadequate food supply of the barriofolk. The wild pig is not a serious agricultural problem in Caticugan and the meat is admittedly inferior to that of the domesticated pig. Most wild plants are considered as "emergency foods" to be gathered and eaten only when staples are low; i.e., when the corn and rice from the last harvest are low and new crops are not ready to harvest. For barriofolk during this period the foods collected may be important; however, this is true only of a minority in Caticugan unless there is a poor harvest or crop failure.

If the cultivated food supply were adequate all year long, hunting and, particularly, food gathering, probably would cease. Young men might continue to hunt wild pigs for sport and some wild foods would, most likely, be gathered (the "delicacies" such as mushrooms, lumboy, etc.). The role hunting and food gathering play in the daily life of the barriofolk of Caticugan today is a reflection of seasonal inadequacy of food supply and low living standards.

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task with getting nipa leaves. The largest clam found in these areas is the Toway; one pokes a bolo (brought to cut nipa leaves) or a stick into a soft mount or bubbling hole in the damp sand of the swamp to get Toways. Four types of snails that are found in nipa swamps are: Dalodalo, Haspnipa, Libodbod, and Taboysoy (the latter clings to the palm trunks and leaves).

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Two types of seaweed are gathered and eaten by the barriofolk: a green moss, lumot, and a brownish moss, lagot. Lagot is put in hot water, then drained and garlic, salt, and vinegar added. These two seaweeds are gathered during the dry season along the beach. When the rainy season begins the mosses "become slippery and are not good to eat." Only a few families in Catiougan were observed eating these mosses.

METHODS OF OBTAINING RIVER FISH

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A large share of the fish eaten locally is caught in the Siaton River. Many families eat more river fish than sea fish. They either lack money to buy sea fish or there may be none for sale in the marketplace.

Table XXIX[1] lists local names, and in most cases, scientific identification, of types of fish caught in the Siaton River.

River fish are caught in eight different ways: (1) with nets (te-an and tangkop); (2) with bamboo-rattan traps (asag, balantak and bobo); (3) with fish poisons; (4) by the galobog method; (5) by a process called

1 [See p. 540, cat. 226 or 116 -- Analyst]

say Lavagay that escape will not return to the sea for seven years. 226

The Tolo crab is usually found around rocks in shallow water; more live in the river than in Caticugan Creek. They are caught in the balantak, ta-an and asag along with the Hipon, shrimp and fish. 226 136

The Alimango is a large crab, growing to the size of a small coconut, that lives in nipa and mangrove swamps or in the tidal reaches of the river. They are caught by digging them from their holes in the sand or mud. Another method is to put a fish trap baited with chicken guts or fish in the swamp. One man living in Baybay caught eight good-sized Alimangos in two days with such a baited trap.

River fish, shrimp and crabs form a considerable part of the aquatic food. Caticugan barriofolk eat more aquatic food from the river and creek than from the sea. As one travels to barrios farther from the sea, the importance of the sea as a source of food diminishes. The sea food eaten in Casala-an, for example, consists mainly of dried fish or canned sardines bought in the poblacion. Caticugan people do not prefer river to marine aquatic food; they often lack money to buy sea fish in the marketplace. During the rainy season the supply is often inadequate for the demand, whereas prices are higher. Although the people of Caticugan live only a mile from the sea they lack the necessary equipment to 226 262 433 435 226 471

catch fish in the sea and the money necessary to construct a fish corral.

PELAGIC FISHING: INTRODUCTION

The South Mindanao Sea is considered one of the richest fishing grounds in the Philippines, according to Dr. Villadolid, Director, Bureau of Fisheries. This section describes the methods of catching fish, types caught, and commercial aspects of pelagic fishing. In the past, cattle was the "big business" of Siaton municipality. Today, with the depletion of the herds during the last war, the fish corral has become the municipality's "big business."[31]

Four major methods of catching sea fish are used in Siaton municipality. First, the bonsod or bongsod (fish corral); second, various types of twine or abaca nets; third, the bobo fish trap; and fourth, hook and line fishing from small boats. As has been noted previously, piscicides cannot be considered a major method of catching pelagic fish in Siaton.

[31] I did not live in a fishing barrio. However, I spent a great deal of time in Baybay and Malabuhan, often staying in the villages for several days at the time, observing and talking with the residents. Most commercial fishermen lived in the poblacion. Mr. Francisco Baldebrin, vice mayor of the municipality, was one of my most intelligent and willing informants; he managed several fish corrals off Baybay. Other fishermen such as Mr. Pedro Solde and Carding Alonzo, Malabuhan, spent a great deal of time with me, showing me their equipment and explaining their work. For comparative data on Philippine fish traps, types of nets, etc., vide Agustin F. Umali, Guide to the Classification of Fishing Gear in the Philippines. Research Report 17. Washington, D. C., Fish and Wildlife Service, United States Department of the Interior, Government Printing Office, 1950.

Sale of Fish Caught in the Bonsods

Most fish caught in the bonsods are sold in Dumaguete because of the higher prices paid in the city. Fish are taken to Dumaguete by the busses that run between Tolong-Dumaguete and Siaton-Dumaguete. The bonsod owner pays fifty cents for each box (about the size of an orange crate) of fish hauled to Dumaguete; a tax of one cent a pound is paid on fish sold in the marketplace. Large fish like tuna are tagged on the tail and sent individually to the city market. When the tagged boxes of fish arrive in Dumaguete marketplace they are taken by the owner's agent (in one case a woman) who receives 10 per cent of the profits.

If a large bonsod catch is made and no busses are available until the next day, Siaton operators may hire a small truck owned by a local resident. Since ice is not available, the fish must be sold quickly or they spoil. The lament of a cafe owner near the Siaton River bridge was that during fishing season busses and trucks rarely stopped at his place because they were usually carrying fish to Dumaguete. The drivers feared a leisurely trip might cause the fish to spoil.[62]

Marine fish never were plentiful in the poblacion marketplace during my residence--and fresh-water fish were

[62]According to the Bell Report the Philippine fishing industry needs to be provided with "cold storage transportation to expand the market for fish, and...the development of freezer packers." The Bell Report, op. cit., p. 66.

never sold there. The scarcity of fish may be somewhat atypical--although most residents claimed it was not--since the bonsod catches were small this year and the fish corrals destroyed earlier than usual. When the day's fish supply arrived in the marketplace, it was quickly sold; some days there were no fresh fish for sale. Since fish brings a higher price in Dumaguete even small amounts are taken to the city, draining Siaton of much of its fresh fish. For example, one afternoon a fish corral made a catch of more than thirty boxes of sardine. The owner sold a few boxes in Siaton, more from a sense of duty than for profit, at eleven dollars a box; the rest were sent to Dumaguete where they sold for thirteen dollars a box. As a result, whenever news comes to the poblacion that a large catch has been made, either in the bonsod or by netting, the people flock to the seashore to buy fish for their personal use or to sell in the local market.

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FISH NETS IN SIATON

Since the last war abaca nets have replaced the cotton twine nets once widely used in Siaton; twine nets are very expensive owing to inflation. In the past many large twine nets used were made in Japan whereas today most of them are said to be imported from the United States. Nets made of cotton twine are called pokot or sigin; those made of abaca are called sahid or sinsoro.

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Nearly all of the boats are equipped with a coconut shell or bamboo bailer. One baroto had a hole in the bottom of the hull, from which a wooden plug could be removed to empty the boat of water. Paddles (borsay) are made from a light, sturdy wood. When boats are beached they usually are covered with palm fronds to protect them from the heat and rain. Some large bancas are kept in palm leaf sheds when not in use. 501

A young boy who lives in a seaside barrio becomes adept at handling a baroto; the young girls have less chance to learn. While women may ride as passengers in boats they rarely, if ever, go fishing; almost all aspects of pelagic fishing are masculine. No toy boats or small boats were seen in the fishing barrios for teaching young boys skills necessary when they become adults. 462 226 868

Summary

Securing aquatic products, from creeks, rivers and sea, consumes more time on the part of the barriofolk than any other activity except agriculture. It is necessary to make traps and nets, keep them in repair, and inspect them for catches. The people of Caticugan, however, depended little upon the sea for aquatic foods although the community is near the coast. When the cost of a fish corral is known, it is apparent that most barriofolk lack the necessary capital for the initial investment in boat, nets, building supplies, etc. Although a bobo trap could be made by most of the Caticugan barriofolk, one reason why so few have bobos is the lack of a boat. No 226 433 471

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one in the barrio owned a boat. One man had a partnership with a resident of a seaside barrio; the former made the bobo, the latter furnished the boat and they shared the catch equally. This was the only such partnership discovered in Caticugan. The barriofolk of Caticugan depend largely on products of the creek and river for their proteins. Data of diet indicate that pelagic products are not common in the daily diet. The small fish, eels, shrimp, crabs and snails obtained from the creek and river compose the bulk of aquatic foods eaten in Caticugan. The importance of this source of food for rural Filipinos has been overlooked almost entirely.[75]

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As with agricultural and food-gathering activities, pre-Hispanic animism appears in aquatic techniques. The ceremonies related to the construction of boats, fish corrals and the rituals connected with the installation of these devices, reflect deep-rooted beliefs in unseen spirits who are the titular owners of sea products. While some poblacion residents who finance fish corrals are sceptical of these concepts, they usually are tolerant of their workers' attitudes. Perhaps these more sophisticated individuals, not thoroughly convinced of the falsity of these beliefs, take the attitude that "most superstitious practices do no harm and may do some good," a Cebuano saying. These attitudes and customs associated with securing

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[75] The Rivera-McMillan report includes several pages of "typical menus of rural households" (Appendix C) that make no mention of fresh-water shrimp or snails. However, one picture is included (p. 162) that shows a small family eating "rice, small shrimp, and snail for supper." The lack of this information in the typical menus may be due to the barriofolk's hesitation to admit eating snails. Rivera-McMillan, op. cit., pp. 212-3.